

Proposed Amendments to the Claims:

Please note that all claims currently pending and under consideration in the referenced application, following entry of the proposed amendments, are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A field emission tip, comprising a structure comprising at least one of semiconductive material and conductive material, ~~said the~~ structure including:
a periphery with an at least substantially vertical sidewall portion and an inclined sidewall portion ~~with no discernable boundary between~~ surrounding said the substantially vertical sidewall portion ~~and said the inclined sidewall portion~~; and
an apex at the top of ~~said the~~ structure.
2. (Currently amended) The field emission tip of claim 1, wherein a height of ~~said the~~ at least substantially vertical sidewall portion exceeds a width of ~~said the~~ structure.
3. (Currently amended) The field emission tip of claim 1, wherein ~~said the~~ apex comprises a low work function material.
4. (Currently amended) The field emission tip of claim 3, wherein ~~said the~~ low work function material is selected from the group comprising aluminum titanium silicide, titanium silicide nitride, titanium nitride, tri-chromium mono-silicon, and tantalum nitride.
5. (Currently amended) The field emission tip of claim 1, wherein ~~said the~~ apex has a lateral width of less than about 100 nm.

6. (Currently amended) The field emission tip of claim 1, wherein ~~said~~ the apex has a lateral width of less than about 50 nm.

7. (Currently Amended) A field emission tip, comprising a structure comprising at least one of semiconductive material and conductive material, ~~said~~ the structure including:
a periphery with an at least substantially vertical portion and an inclined sidewall portion
~~with no discernable boundary between~~ surrounding said the substantially vertical
sidewall portion ~~and said the inclined sidewall portion~~; and
an apex at the top of ~~said~~ the structure, ~~said~~ the apex having a lateral width of less than about 100 nm.

8. (Currently amended) The field emission tip of claim 7, wherein ~~said~~ the apex has a lateral width of less than about 50 nm.

9. (Currently amended) The field emission tip of claim 7, wherein ~~said~~ the apex comprises a low work function material.

10. (Currently amended) The field emission tip of claim 9, wherein ~~said~~ the low work function material is selected from the group comprising aluminum titanium silicide, titanium silicide nitride, titanium nitride, tri-chromium mono-silicon, and tantalum nitride.

11. (Currently Amended) A field emission array, comprising:
a substrate; and
at least one substantially pointed tip protruding from ~~said~~ the substrate, ~~said~~ the at least one substantially pointed tip comprising at least one of a semiconductive material and a conductive material, ~~said~~ the at least one substantially pointed tip including a periphery, at least a first portion of ~~said~~ the periphery being oriented substantially perpendicularly relative to ~~said~~ the substrate and at least a second portion of ~~said~~ the periphery being

oriented at an angle relative to ~~said the~~ substrate, with ~~no discernable boundary between~~
~~said the~~ first portion and surrounded by said the second portion.

12. (Currently amended) The field emission array of claim 11, wherein at least ~~said~~
the portion of ~~said the~~ periphery is adjacent ~~said the~~ substrate.

13. (Currently amended) The field emission array of claim 11, wherein a height of at
least ~~said the~~ portion of ~~said the~~ periphery relative to ~~said the~~ substrate exceeds a width of ~~said~~
the at least one substantially pointed tip.

14. (Currently amended) The field emission array of claim 11, wherein a top portion
of ~~said the~~ at least one substantially pointed tip comprises a low work function material.

15. (Currently amended) The field emission array of claim 14, wherein ~~said the~~ low
work function material is selected from the group comprising aluminum titanium silicide,
titanium silicide nitride, titanium nitride, tri-chromium mono-silicon, and tantalum nitride.

16. (Currently amended) The field emission array of claim 11, further comprising
redeposition material adjacent at least a portion of ~~said the~~ periphery.

17. (Currently amended) The field emission array of claim 11, wherein an apex of
~~said the~~ at least one substantially pointed tip has a lateral width of less than about 100 nm.

18. (Currently amended) The field emission array of claim 11, wherein an apex of
~~said the~~ at least one substantially pointed tip has a lateral width of less than about 50 nm.

19. (Currently Amended) A field emission display, comprising:
an anode display screen;
a cathode spaced apart from ~~said the~~ anode display screen, ~~said the~~ cathode including:

a substrate;

at least one substantially pointed tip protruding from ~~said the~~ substrate, ~~said the~~ at least one substantially pointed tip comprising at least one of a semiconductive material and a conductive material, ~~said the~~ at least one substantially pointed tip including a periphery, at least a first portion of ~~said the~~ periphery being oriented substantially perpendicularly relative to ~~said the~~ substrate and at least a second portion of ~~said the~~ periphery being oriented at an angle relative to ~~said the~~ substrate with ~~no-discernable boundary between said the~~ first portion and surrounded by said the second portion; and

a gate through which ~~said the~~ at least one substantially pointed tip is exposed;

a substantial vacuum between ~~said the~~ anode display screen and ~~said the~~ cathode; and

a voltage source associated with ~~said the~~ anode display screen, ~~said the~~ gate, and ~~said the~~ cathode to provide a potential difference between ~~said the~~ cathode and ~~said the~~ gate and between ~~said the~~ cathode and ~~said the~~ anode display screen.

20. (Currently amended) The field emission display of claim 19, wherein at least ~~said the~~ portion of ~~said the~~ periphery is adjacent ~~said the~~ substrate.

21. (Currently amended) The field emission display of claim 19, wherein a height of at least ~~said the~~ portion of ~~said the~~ periphery relative to ~~said the~~ substrate exceeds a width of ~~said the~~ at least one substantially pointed tip.

22. (Currently amended) The field emission display of claim 19, wherein a top portion of ~~said the~~ at least one substantially pointed tip comprises a low work function material.

23. (Currently amended) The field emission display of claim 22, wherein ~~said the~~ low work function material is selected from the group comprising aluminum titanium silicide, titanium silicide nitride, titanium nitride, tri-chromium mono-silicon, and tantalum nitride.

24. (Currently amended) The field emission display of claim 19, further comprising redeposition material adjacent at least a portion of ~~said~~ the periphery.

25. (Currently amended) The field emission display of claim 19, wherein an apex of ~~said~~ the at least one substantially pointed tip has a diameter of less than about 100 nm.

26. (Currently amended) The field emission display of claim 19, wherein an apex of ~~said~~ the at least one substantially pointed tip has a diameter of less than about 50 nm.